



CITY OF DURHAM

Memorandum

To: William V. Bell; Howard Clement, III; Mike Woodard;
Diane Catotti; Cora Cole-McFadden; Eugene A. Brown;
Thomas Stith, III ; Patrick W. Baker

Through: Theodore L. Voorhees, Assistant City Manager
Kathryn R. Kalb, Public Works Director

From: Edward R. Venable, Assistant Engineering Manager

Date: August 7, 2006

Subject: Report on Apex Street Bridge Alternatives

The Apex Street Bridge was funded for replacement through the Federal Bridge Replacement Program. At a series of public meetings, City Council voted to not approve the municipal agreement to replace the vehicular bridge and to replace the bridge with a pedestrian bridge. Staff was directed by Council to analyze the current structure and make recommendations for future use. At the April 4, 2005 City Council meeting Council authorized the Public Works Department to contract with Parsons Brinckerhoff Quade & Douglas, Incorporated for professional engineering services associated with the Apex Street Bridge. This project included the analysis of the existing Apex Street Bridge spanning the American Tobacco Trail for future use as a pedestrian facility. Funds for the services were approved in the Capital Improvement Program (CIP).

The subsequent Apex Street Bridge report provides two alternatives to address the needs of pedestrians to use the bridge. Alternative one is to repair the bridge for pedestrian use and is estimated to cost \$408,200 with a useful life of 20 years. Alternative two is to demolish the existing bridge and construct a pre-fabricated bridge and is estimated to cost \$325,200 with a useful life of 30 years. A third alternative was identified to demolish the existing bridge and construct a pedestrian ramp on the east side (St. Theresa neighborhood) of the American Tobacco Trail to match the existing pedestrian ramp on the west side (Forest Hills neighborhood) at a cost of \$234,000.

Also, by direction of the City Manager's office, Public Works Engineering conducted an informational public meeting on February 8, 2006 to present the results of the Apex Street Bridge report and to solicit input on a preferred alternative desired by the public. The report presented two options for the bridge and Public Works Engineering offered a third option for discussion, that being to demolish the bridge and put in pedestrian ramps. None of the options proposed that the bridge be returned to a condition such that it could support vehicular traffic. From the public meeting there was no consensus of a single preferred alternative. There was general consensus that a pedestrian connection to the American Tobacco Trail is desired.

Also, although no preferred bridge alternative was identified, there was a clear desire to connect the neighborhoods on either side of the American Tobacco Trail with a pedestrian bridge of some design.

The Public Works Department then presented the report to PAC 3 on May 13, 2006. After a discussion on the report presentation, PAC 3 voted unanimously to support alternative two involving demolition of the existing bridge and replacing it with a pre-fabricated pedestrian bridge. The Public Works Department then presented the report to PAC 4 on June 10, 2006. After a discussion on the report presentation, PAC 4 voted to endorse a vehicular bridge with no decision on the type of pedestrian bridge they would prefer.

Results of the informational public meeting were presented to City Council on July 20, 2006 at Work Session. Council directed Public Works to investigate the cost of replacement of the existing bridge with a new vehicular bridge under the Municipal Bridge Program. The bridge is currently on the Transportation Improvement Program (TIP) as unfunded. To fund the project, NCDOT will require a Council action committing to the replacement of the Apex Street bridge with a vehicular bridge. Funding would not be available until 2009 at the earliest. The estimated cost is \$1,000,000. The City would have to fund the total cost of the bridge replacement. Then the City can seek reimbursement from NCDOT for 80% of the cost. It would likely take 18 months to 2 years to design and construct the bridge. If funded in 2009, bridge completion would be in 2011. The existing bridge can be maintained for another year's service as a pedestrian bridge but depending on the rate of deterioration may have to be closed completely in 2007. All estimates are today's costs and would need to be inflated to reflect the actual year of construction.

Alternative	Bridge Type	Cost	Lifespan	Funding Year	Construction Complete
One	Repair the bridge for pedestrian use	\$408,200	20 years	2007	1.5 years
Two	Demolish the existing bridge and construct a pre-fabricated pedestrian bridge	\$325,200	30 years	2007	1.5 years
Three	Demolish the existing bridge and construct a pedestrian ramp on the east side	\$234,000	unlimited	2007	1 year
Four	Demolish the existing bridge and construct a vehicular bridge 80% NCDOT Reimbursement City cost \$200,000	\$1,000,000	30 years	2009	2 years